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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/828,644	04/06/2001	Gabriel Vogeli	00196US1/PHRM-0330	5533

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EXAMINER
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ULM, JOHN D

ART UNIT	PAPER NUMBER
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1646

DATE MAILED: 07/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/828,644

Applicant(s)  
Vogeli

Examiner  
John Ulm

Art Unit  
1646



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-124 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claims 1-124 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                              | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ | 6) <input type="checkbox"/> Other: _____                                    |

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- 1) Claims 1 to 124 are pending in the instant application.
- 2) Claims 1 to 39, 41, 49, 53 to 59, 66 to 73 and 78 to 81 are objected to as reciting an improper Markush Group. M.P.E.P. 803.02 states that:

“Since the decisions in *In re Weber* \*\*, 198 USPQ 328 (CCPA 1978); and *In re Haas*, 198 USPQ 334 (CCPA 1978), it is improper for the Office to refuse to examine that which applicants regard as their invention, unless the subject matter in a claim lacks unity of invention, *In re Harnish*, 631 F.2d 716, 206 USPQ 300 (CCPA 1980); *Ex Parte Hozumi*, 3 USPQ2d 1059 (Bd. Pat. App. & Int. 1984). Broadly, unity of invention exists where compounds included within a Markush group (1) share a common utility and (2) share a substantial structural feature disclosed as being essential to that utility.”

The fifty eight different amino acid sequences recited in claim 1 and the fifty eight different nucleotide sequences recited in claim 8 lack a common utility which is based upon a shared structural feature disclosed as the basis for that common utility and lacking from the prior art. Correction is required.

- 3) Claims 30 to 39, 44, 47, 52, 67 and 68 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. A properly dependant claim can not conceivably be infringed without infringing any of the claims from which it depends. Applicant is advised that claims 44, 47, 52, 67, 68, 99, 102 and 107 are not proper product-by-process claims because the processes referred to therein are analytical, not synthetic. See M.P.E.P. 608.01(n)III. Correction is required.

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4) Restriction to one of the following inventions is required under 35 U.S.C. 121:

I to LVIII. Claims 1 to 21, 25 to 29, 67 to 72, 82 to 85, 89 and 113 to 116, only in so far as they are drawn to an isolated nucleic acid molecule encoding a polypeptide comprising any one of the fifty eight different amino acid sequences recited therein and a method of use, classified in class 435, subclass 69.1. For example, invention I consists of claims 1 to 21, 25 to 29 and 67 to 72 only in so far as they are drawn to an isolated nucleic acid molecule encoding a polypeptide comprising all or a portion of the amino sequence presented in SEQ ID NO:77 of the instant application. Invention LXXVI consists of claims 1 to 21, 25 to 29 and 67 to 72 only in so far as they are drawn to an nucleic acid molecule encoding a polypeptide comprising all or a portion of the amino sequence presented in SEQ ID NO:152 of the instant application.

LIX to CXVI. Claims 22 to 25, 65 and 86 to 88, only in so far as they are drawn to a nucleic acid probe which is complementary to a nucleic acid molecule encoding a polypeptide comprising any one of the fifty eight different amino acid sequences recited therein, classified in class 536, subclass 24.31.

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- CXVII to CLXXIV. Claims 30 to 35 and 90 to 92, in so far as they are drawn to an isolated polypeptide comprising any one of the fifty eight different amino acid sequences recited therein, classified in class 530, subclass 350.
- CLXXV to CCXXXII. Claims 36 to 38, 93 and 94, in so far as they are drawn to an antibody which binds to a polypeptide comprising any one of the fifty eight different amino acid sequences recited therein, classified in class 530, subclass 388.22.
- CCXXXIII to CCXC. Claims 39 and 95, in so far as they are drawn to a method of inducing an immune response by administering a polypeptide comprising any one of the fifty eight different amino acid sequences recited therein, classified in class 424, subclass 185.1.
- CCXCI to CCCXLVIII. Claims 40 to 43, 48 to 51, 96 to 98 and 103 to 106, in so far as they are drawn to a ligand binding assay employing a polypeptide comprising any one of the fifty eight different amino acid sequences recited therein, classified in class 435, subclass 7.1.
- CCCXLIX to CDVI. Claims 44, 52, 99 and 107, in so far as they are drawn to a compound of unspecified constitution which is binds to a polypeptide comprising any one of the fifty eight different amino acid sequences recited therein, classification undeterminable.

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CDVII to CDLXIV.

Claims 45, 46, 100 and 101, in so far as they are drawn to a binding assay employing an isolated nucleic acid encoding a polypeptide comprising any one of the fifty eight different amino acid sequences recited therein, classified in class 436, subclass 94.

CDLXV to DXXII.

Claims 47 and 102, in so far they are drawn to a compound of unspecified constitution which is binds to an isolated nucleic acid encoding a polypeptide comprising any one of the fifty eight different amino acid sequences recited therein, classification undeterminable.

DXXIII to DLXXX.

Claims 53 to 55 and 108 to 110, in so far as they are drawn to a method of identifying a nucleic acid sequence encoding a homolog of a polypeptide comprising any one of the fifty eight different amino acid sequences recited therein, classification undeterminable.

DLXXXI to DCXXXVIII.

Claims 56 to 64, 66, 111 and 112, in so far as it is drawn to a diagnostic method of genetic analysis employing a nucleic acid probe which is complementary to a nucleic acid molecule encoding a polypeptide comprising any one of the fifty eight different amino acid sequences recited therein. classified in class 435, subclass 6.

DCXXXIX to DCXCVI.

Claim 73 to 77 and 117 to 120, in so far as they are drawn to a binding assay employing a cell comprising a recombinant nucleic

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acid encoding a polypeptide comprising any one of the fifty eight different amino acid sequences recited therein, classified in class 435, subclass 7.2.

DCXCVII to DCCLIV.

Claims 78 to 81 and 121 to 124, in so far as they are drawn to a method of purifying a G protein by employing a polypeptide comprising any one of the fifty eight different amino acid sequences recited therein, classified in class 435, subclass 815.

The inventions are distinct, each from the other because:

The one hundred sixteen different nucleic acids that are inventions I to CXVI, the fifty eight different proteins of inventions CXVII to CLXXIV, the fifty eight different antibodies that are inventions CLXXV to CCXXXII, and the one hundred sixteen different binding compounds that are inventions CCCXLIX to CDVI and CDLXV to DXXII are two hundred ninety different chemical compounds each of which can be made and used without any of the other compounds. These two hundred ninety different compounds lack unity of invention because they have no common utility which is based upon a shared structural feature lacking from the prior art and disclosed as a basis for that common utility.

The nucleic acids of inventions I to LVIII are related to the nucleic acid binding assays of inventions CDVII to CDLXIV and the ligand binding assays of inventions DCXXXIX to DCXCVI as fifty eight products and two materially different processes of using each of those products. The inventions can be shown to be distinct if either or both of the following can be

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shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the binding assays of inventions CDVII to CDLXIV are materially different from the ligand binding assays of inventions DCXXXIX to DCXCVI because they achieve different results by employing different process steps.

The fifty eight different nucleic acid probes of inventions LIX to CXVI are related to the methods of identifying a nucleic acid sequence encoding a homolog that are inventions DXXIII to DLXXX and the diagnostic methods of inventions DLXXXI to DCXXXVIII as fifty eight products and two materially different processes of using each of those products. The searching methods of inventions DXXXIII to DCVIII are materially different from the diagnostic methods of inventions DCIX to DCLXXXIV because they achieve different results by employing different process steps.

The fifty eight different proteins of inventions CXVII to CLXXIV are related to the methods of inducing an immune response that are inventions CCXXXIII to CCXC, the binding assays of inventions CCXCI to CCCXLVIII and the methods of purifying a G protein that are inventions DCXCVII to DCCLIV as fifty eight different products and three materially different processes of using each of those fifty eight products. The methods of inducing an immune response that are inventions CCXXXIII to CCXC, the binding assays that are inventions CCXCI to CCCXLVIII and the methods of purifying a G protein that are inventions DCXCVII to



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DCCLIV are materially different processes of using common products because they achieve different results by employing different process steps.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).


Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John D. Ulm whose telephone number is (703) 308-4008. The examiner can normally be reached on Monday through Friday from 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler can be reached at (703) 308-6564.

Official papers filed by fax should be directed to (703) 308-4242 or (703) 872-9306. Official responses under 37 C.F.R. § 1.116 should be directed to (703) 872-9307.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.



JOHN ULM  
PRINCIPAL EXAMINER  
GROUP 1